

IN THE CLAIMS:

Please cancel claim 8 without prejudice or disclaimer.

1. (Previously Presented) A mold apparatus characterized by comprising:

(a) a first mold unit;

(b) a second mold unit;

(c) a sprue bush disposed in one of the first and second mold units and having a sprue for charging a molding material into a cavity space;

(d) a machining member disposed in the other of the first and second mold units in such a manner that the machining member can be advanced and retracted, the machining member performing a predetermined machining for a prototype of a molded product when the machining member is advanced;

(e) a bush disposed radially outward of the machining member to surround the machining member and having a flow passage which is formed in a front end portion thereof and through which a temperature control medium flows;

(f) a support member is disposed between the machining member and bush,

(g) wherein the support member extends rearward from a position at a front end portion of the machining member.

2. (Original) A mold apparatus according to claim 1, wherein an annular flow passage through which a temperature control medium flows is formed in a front end portion of the sprue bush.

3. (Previously Presented) A mold apparatus according to claim 2, wherein the radial dimension of a flow passage of the sprue bush is greater than an inner diameter of a supply passage for supplying the temperature control medium to the flow passage of the sprue bush.

4. (Original) A mold apparatus according to claim 1, wherein the flow passage formed in the front end portion of the bush is an annular flow passage.

5. (Previously Presented) A mold apparatus according to claim 1, further comprising:

(a) the support member extends rearward from a position near the flow passage formed in the front end portion of the bush.

6. (Original) A mold apparatus according to claim 5, wherein the supply passage for supplying the temperature control medium to the flow passage of the bush is formed along the support member.

7. (Original) A mold apparatus according to claim 5, wherein a discharge passage for discharging a lubricant used for lubricating the support member is formed in the machining member.

8. (Cancelled)

9. (Previously Presented) A method of molding a product in a mold apparatus comprising a first mold unit; a second mold unit; a sprue bush disposed in one of the first and second mold units and having a sprue; a machining member disposed in the other of the first and second mold units in such a manner that the machining member can be advanced and retracted; a bush disposed radially outward of the machining member to surround the machining member; and a support member disposed between the machining member and the bush, wherein the support member extends rearward from a position at a front end portion of the machining member, the method being characterized by comprising the steps of:

(a) charging a molding material into the cavity space via the sprue;

(b) cooling the molding material so as to form a prototype of the molded product;

and

(c) advancing the machining member along an inner circumferential surface of the bush via the support member so as to perform a predetermined machining on the prototype of the molded product.

10. (Previously Presented) A molding machine equipped with the mold apparatus as described in claim 1.

11. (Previously Presented) A bush for a disc-molding mold comprising a first mold unit; a second mold unit; a sprue bush disposed in one of the first and second mold units and having a sprue for charging the molding material into the cavity space; and a machining member disposed in the other of the first and second mold units in such a manner that the machining member can be advanced and retracted; the machining member performing a predetermined machining for a prototype of a molded product when the machining member is advanced wherein

(a) the bush, having a cylindrical shape, surrounds the machining member radially outward and a support member which extends rearward from a position at a front end portion of the machining member so as to support the machining member; and

(b) a discharge passage for discharging a lubricant used for lubricating the support member is formed in the rear end portion of the machining member.

12. (Previously Presented) A bush according to claim 11, wherein a flow passage through which a temperature control medium flows is formed near the front end portion thereof.